Remarks

Claims 43-91 have been amended. The amendments to these claims were made to better define Applicants' invention and to place the claims into a format that is more reflective of standard U.S. patent prosecution practice. As such, no new matter has been introduced by any of the amendments.

1. **Rejection under 35 U.S.C. § 102(b)**

A. *Egen*

Claims 43-56, 57-74 and 76-91 have been rejected as being anticipated by U.S. Patent 5,336,387 to Egen *et al.* ("Egen").

Applicants respectfully disagree with the Examiner's assessment of Egen as it pertains to Applicants' claimed invention. As evidenced by the title of the his patent, Egen describes an electrical separator apparatus that may be used for isoelectric focusing or counter-flow gradient focusing. Electrodialysis is described by Egen as a purification technique also encompassed by his invention. All three of these described methods require continuous pumping of solvents through multichannel pumps (see, *e.g.,* column 9, lines 45-58; column 11, line 57 through column 12, line 9; and column 18, lines 41-53). The movement of the compounds to be separated by the Egen invention are therefore influenced to a great extent by pressure differentials between compartments contained within the Egen apparatus. The extreme application of this mechanism of separation can be found with Egen's counter-flow gradient focusing, which Egen describes as providing "a counter-flow gradient which counteracts the electrophoretic migration of the ions to be separated" (column 11, lines 50-55, emphasis added).

In contrast to the teaching of Egen, Applicants' claimed invention requires that substantially all transmembrane migration of the compounds to be separated is initiated by application of an electric potential. Unlike the invention described by Egen, no pressure or fluid force is necessary in Applicants' claimed invention to effect separation of compounds. Further, Applicants' claimed invention does not employ the isoelectric and electrodialysis membranes used in the various embodiments of the described Egen invention. For at least these reasons, Applicants' invention is therefore quite different from the invention described by Egan and as such, Applicants respectfully request that this rejection be withdrawn.

B. *Laustsen*

Claims 43-56, 57-74 and 76-91 have been rejected as being anticipated by U.S. Patent 5,437,774 to Laustsen ("Laustsen").

Applicants respectfully disagree with the Examiner's assessment of Laustsen as it pertains to Applicants' claimed invention. Laustsen teaches a method for separating high molecular weight compounds in solution (a load stream) from each other by using a combination of electric potential and differential pressure as a means for initiating the selective passage of one of the compounds through a separation membrane into a second solution (a dialysate) while the other of the compounds remains contained between the separation membrane and a retention membrane. The use of differential pressure as a separating-enhancing means appears in all of the Laustsen examples and reflects the general teaching in Laustsen that "migration of the molecular species to be separated is established by controlling electrical potential and differential pressure across the separation and retention membranes" (column 5, lines 47-52, emphasis added). In contrast, Applicants claim a method of separating a non-pathogenic biological contaminant from a mixture containing the contaminant and a compound across a membrane in which all substantial transmembrane migration of one of the two components is initiated solely by application of a current. No pressure or fluid force is necessary in Applicants' invention to effect separation of compounds.

Further, Laustsen teaches the use of charged (isoelectric) membranes as a means of enhancing separation of the described high molecular weight compounds (see, *e.g.*, the Experimental section and column 4, lines 3-18). In contrast to this teaching by Laustsen, Applicants' claimed invention relies on the application of an electric potential alone for substantially all transmembrane migration of the components to be separated. For at least these reasons, Applicants' invention is therefore quite different from the invention described by Laustsen and Applicants therefore request that the rejection of these claims be withdrawn.

2. Rejection under 35 U.S.C. § 103(a)

Claims 57 and 75 have been rejected as being unpatentable over Laustsen in view of U.S. Patent 5,650,055 to Margolis ("Margolis"). While the Examiner acknowledges that Laustsen fails to disclose the reversal of polarity of the electric field, Margolis is cited to show the use of the reversal of polarity in the electrophoretic separation of macromolecules, such as proteins. The Examiner asserts that it would have been obvious to a skilled artisan to modify the disclosure of Laustsen with the Margolis disclosure because Margolis teaches that the periodic reversal of polarity contributes to the desired purity of the compounds.

Applicants respectfully disagree with the Examiner's arguments of obviousness of claims 57 and 75 based on a combination of Laustsen and Margolis. As stated above, Laustsen teaches the use of isoelectric membranes in his described apparatus. A person of ordinary skill would not be motivated to reverse the direction of electric field in such membranes with an expectation of achieving improved separation of components. Further, Margolis cannot remedy the deficiencies present in Laustsen that prevents Laustsen from anticipating or rendering obvious Applicants' claimed invention. For at least these reasons, this obviousness rejection should be withdrawn.

3. Rejection under Obviousness-Type Double Patenting

A. *U.S. Patent Application No. 09/887,208*

Claims 43-91 have been provisionally rejected under obviousness-type double patenting as unpatentable over claims 43-114 of copending Patent Application No. 09/887,208 ("the '208 application"). While the Examiner acknowledges that the '208 application does not teach that at least a portion of both the contaminant and the selected compound are removed from a fluid stream, the Examiner asserts that it would have been obvious to a skilled artisan to modify the claims of the '208 application because the application of electric current would cause the movement of both the contaminant and the selected compound.

While Applicants disagree with the Examiner's rejection, Applicants have, in order to expedite prosecution of the subject application, filed a terminal disclaimer over the '208 application.

B. U.S. Patent Application No. 10/037,004

Claims 43-91 have been provisionally rejected under obviousness-type double patenting as unpatentable over claims 1-44 of copending Patent Application No. 10/037,004 ("the '004 application") for the same reasons stated in section A above.

Applicants intend to either abandon the '004 application or to amend the claims to make them patentably distinct from the claims in the subject application if the claims in the subject application are found allowable.

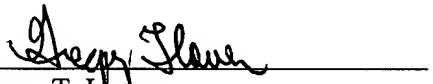
4. Conclusion

The foregoing amendments and remarks are being made to place the application in a condition for allowance. Applicant respectfully requests reconsideration and the timely allowance of the pending

claims. Should the Examiner find that an interview would be helpful to further prosecution of this application, he is invited to telephone the undersigned at his convenience.

Except for issue fees payable under 37 C.F.R. 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which my be required, including any required extension of time fees, or to credit any overpayment to Deposit Account 50-0310. This paragraph is intended to be a **Constructive Petition for Extension of Time** in accordance with 37 C.F.R. 1.136(a)(3).

Respectfully submitted
Morgan, Lewis & Bockius LLP



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